ATTORNEY DOCKET NO. 5576-126 *Patents*

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re: Yasumitsu Ito
Serial No.: to be assigned
Filed: concurrently herewith
For: FUEL CELL

Date: June 18, 2001

PRELIMINARY AMENDMENT

Commissioner of Patents
Washington, D.C. 20231

Sir:

Prior to the examination of the claims, please enter the following amendment prior to calculation of the filing fee.

In the Specification:

On page 1, line 1 of the specification, please insert the following:

- Cross-Reference to Related Applications

The present application claims priority to Japanese Patent Application No. 2000-182612 filed June 19, 2000, the disclosure of which is incorporated by reference herein in its entirety.-

In the Abstract:

Please delete the abstract.

Please insert therefore the following new abstract.

- A solid polymer fuel cell which had a plurality of unit cells stacked one after another includes an electrode of an anion exchange membrane and an electrode of a cation exchange membrane disposed adjacent but not in contact with each other, gas diffusion layers commonly disposed on both sides of these electrodes for allowing electrons generated on the catalysts to pass, and interconnectors which are disposed outside the gas diffusion layers and serve as a current carrier having a gas channel. –

In the Claims:

Please enter the following new claims.

3. The fuel cell according to Claim 1, wherein the anion exchange membrane comprises a heat-resistant polymer having an anionic group.

4. The fuel cell according to Claim 1, wherein the anion exchange membrane comprises Tosflex®.

5. The fuel cell according to Claim 1, wherein the cationic exchange membrane comprises Nafion®.

6. The fuel cell according to Claim 1, wherein at least one of said gas diffusion layers comprises carbon paper.

7. The fuel cell according to Claim 1, wherein the cation exchange membrane and the anion exchange membrane are vertically disposed relative to each other.

8. The fuel cell according to Claim 1, wherein the gas channel crosses the cation exchange membrane and the anion exchange membrane at a plurality of points.

9. The fuel cell according to Claim 1, wherein said fuel cell comprises a plurality of anion exchange membranes and a plurality of cation exchange membranes disposed alternately on the same plane.

10. The fuel cell according to Claim 9, wherein said fuel cell comprises a plurality of gas channels which cross the plane on which the plurality of anion exchange membranes and a plurality of cation exchange membranes are alternately disposed.

11. A solid polymer fuel cell comprising a plurality of unit cells stacked one after another, said unit cell comprising an electrode of an anion exchange membrane comprising a heat-resistant polymer having an ionic group and an electrode of a cation exchange membrane disposed adjacent but not in contact with each other, gas diffusion layers commonly disposed on both sides of these electrodes for allowing electrons generated on the catalysts to pass, and interconnectors which are disposed outside the gas diffusion layers and serve as a current carrier having a gas channel.

12. The fuel cell according to Claim 11, wherein the anion exchange membrane comprises Tosflex®.

13. The fuel cell according to Claim 11, wherein the cationic exchange membrane comprises Nafion®.

14. The fuel cell according to Claim 11, wherein at least one of said gas diffusion layers comprises carbon paper.

15. The fuel cell according to Claim 11, wherein the cation exchange membrane and the anion exchange membrane are vertically disposed relative to each other.

16. The fuel cell according to Claim 11, wherein the gas channel crosses the cation exchange membrane and the anion exchange membrane at a plurality of points.

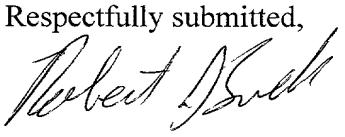
17. The fuel cell according to Claim 11, wherein said fuel cell comprises a plurality of anion exchange membranes and a plurality of cation exchange membranes disposed alternately on the same plane.

18. The fuel cell according to Claim 17, wherein said fuel cell comprises a plurality of gas channels which cross the plane on which the plurality of anion exchange membranes and a plurality of cation exchange membranes are alternately disposed.

Remarks

Claims 1-18 are presented herein for examination, action of which is respectfully requested by Applicant.

Respectfully submitted,



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I hereby certify that the foregoing instrument is going via express mail to the United States Patent and Trademark Office via express mail number EL733097765US on June 18, 2001

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Date of Signature: June 18, 2001